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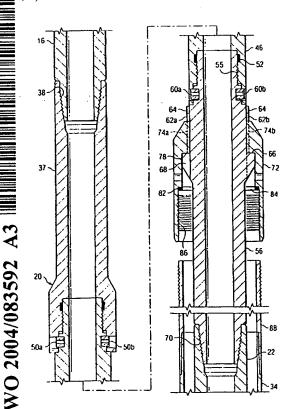
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[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR RUNNING A RADIALLY EXPANDABLE TUBULAR MEMBER



(57) Abstract: A tubular apparatus (20) and method, according to which a first tubular member (34) is adapted to be lowered into a well bore and a second tubular member (120) is connected to the first tubular member (34). A third tubular member (102, 112) is normally connected to the first tubular member (34) and disconnected from the second tubular member (102, 112), and is adapted for movement relative to the first (34) and second tubular (120, 112) members to disconnect from the first tubular member (34) and connect to the second tubular member (102, 112).



GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR). OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE. AG. AL. AM. AT. AU. AZ. BA. BB. BG. BR. BW. BY. BZ. CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG. ES, FI, GB, GD. GE, GH, GM, HR, HU, ID. IL, IN. IS. JP. KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA. MD. MG. MK. MN. MW. MX. MZ. NA. NI. NO. NZ. OM. PG. PH. PL. PT. RO. RU. SC. SD. SE. SG. SK. SL. SY. TJ. TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD. SL. SZ. TZ. UG. ZM. ZW). Eurasian patent (AM. AZ. BY. KG, KZ, MD, RU, TJ, TM), European patent (AT. BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR. GB, GR. HU, IE. IT. LU, MC, NL, PL, PT. RO, SE, SI, SK, TR). OAPI patent (BF. BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN. TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ,

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### INTERNATIONAL SEARCH REPORT

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A. CLAS	SIEKATION OF SUBJECT MATTER E21B 17/00, 19/16					
US CL: 1667742.7,380,208 According to International Patent Classification (IPC) or to both national classification and IPC						
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C. DOC	UMENTS CONSIDERED TO BE RELEVANT					
Cutepory *	Citation of document, with indication, where		Relevant to claim No.			
X.P.L	US 2003/0075337 A1 (Maguire) 24 April 2003 (24	4.04.2003), see Figures.	21-26,28-34			
Y,P,L			27			
Υ .	US 2002/0139540 A1 (Lauritzen) 03 OCtober 200	2 (03.10.2002), see paragraph 0038.	27			
A	US 4,915,177 A (Claycomb) 10 April 1990 (10.04	1.1990), sec Figures.	1-20			
A	US 4,995,464 A (Waskins et al.) 26 February 199	1 (26.02.1991), see Figures.	1-20			
Α	US 3,667,547 A (Ahlstone) 06 June 1972 (06.06.1	1972), see Figures.	1-20			
Α .	US 5,566.772 A (Coone et al.) 22 October 1993 (2	22.10.1996), see Figures.	1-20			
٨	US 4,778,088 A (Gonzalez et al.) 18 October 1986	3 (18.10.1988), see Figures.	1-20			
A. T	US 6,516,887 B2 (Nguyen et al.) 11 February 200	3 (11.02,2003), see Figures.	1-20			
	r documents are listed in the continuation of Box C.	See patent family annex.				
-A- documen	pedal exteguries of cited documents; I defining the general state of the ort which is not considered to ricular reference.	To later document published after the in priority date and not in conflict with understand the principle or theory understand the principle or theory understand the principle.	n bette ted notted in			
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# INTERNATIONAL SEARCH REPORT

	uation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Category *	US 6,732,806 B2 (Mauldin et al.) 11 May 2004 (11.05.2004), see Figures.	21-34
A.E	US 6.695.065 B2 (Simpson et al.) 24 February 2004 (24.02.2004), see Figures.	21-34 21-34 21-34 21-34
A.P.L	US 6,543,552 B1 (Metcalfe et al.) 08 April 2003 (08.04.2003), see Figures.	
A.P.L	US 6.543,545 B1 (Chatterji et al.) 08 April 2003 (08.04.2003), see Figures.	
A	US 6,325,148 B1 (Trahan et al.) 04 December 2001 (04.12.2001), see Figures.	
A	US 5,785,120 A (Smalley et al.) 28 July 1998 (28.07.1998), see Figures.	21-34
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